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**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/387,443	09/01/99	KOPACIEWICZ	W 550P002CONT.

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IM62/0323

EXAMINER

FORTUNA, A

ART UNIT

PAPER NUMBER

1723

DATE MAILED:

03/23/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/387,443

Applicant(s)  
Kopaciewicz

Examiner  
Ana Fortuna

Group Art Unit  
1723



☒ Responsive to communication(s) filed on Sep 1, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-16 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-16 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

2. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
3. Claims 1, 2, 4, 5, 6, 9, 10, 11, 12, 14, 15, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Mehl Ehrenfried et al (WO 98/08594 and EP 0 826, 412). Reference '594 discloses providing a microporous elements or membranes having adsorptive particles and provided at end of a tubular housing or pipette (abstract, pages 36-30, column 8, lines 1-31, column 14, lines 5-35, page 15, lines 1-30, column 17, lines 4-10, page 19, lines 7-32). The polymer having bound adsorptive particles provided continuous to the second open end of the housing or pipette is disclosed (Figures 1 and 4). Regarding claim 6, the polymer is disclosed as polystyrene, cellulose derivatives, etc.(page 3, lines 25-30). Reference '412 also discloses the pipette having the membrane with adsorptive particles at the tip or second end (Fig. 2), the membrane material, housing material and adsorptive particles and process for providing the membrane at the tip or end are disclosed (entire disclosure). Reference '412 further discloses the silica particles or adsorptive particles as treated or derivatized (column 4, lines 1-29).
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 6, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koenst, Jr. et al (4,038,351). Reference '351 discloses a chamber defined by a tubular membrane support coated with a polymer adhered to said interior wall, the support is treated with sorptive particles, e.g. silica particles prior to the coating with the polymer, the film of resin or polymer bonds each filler particles to the adjacent particles (abstract, column 1, lines 1-22, column 2, lines 14-33, column 5, lines 64-068, column 6, lines 1-24). The term housing is not disclosed, but placing a glass plate at the bottom of the module during casting the polymer composition is disclosed, which defines a housing with the tubular structure (column 3, lines 9-56). Regarding claim 2, forming the membrane continuous with the second end is not disclosed, but it would have been obvious to one skilled in the pertinent art by casting the bottom plate. Regarding claim 6, polysulfone is disclosed (column 3, lines 57-68). Therefore, bounding the polymer to silica particles in the chamber defined by the membrane (housing) is disclosed, it would have been obvious to one skilled in the art to provided the same treatment to membranes closed at the bottom, e.g. candle filters, which define a housing.

6. Claims 3, 7, 8, 13,17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mehl Ehrenfried et al (WO 98/08594 and EP 0 826, 412) as applied to claims 2, 2, 4, 6,9, 10, 11, 12, 14-16 above, and further in view of Kulprathipanja et al (5,127,925). Reference '594 and '412 disclose the housing or pipette made from polyolefin, e.g polypropylene, but fails to disclose the polymer containing the adsorptive particles as polysulfone; hydrophobic polymers for the

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adsorptive particles containing membrane or filter medium is disclosed, e.g. polystyrene.

Reference '925 discloses forming membrane with adsorptive particles and using polysulfone as the binder polymer, the particles are adoptive e.g silica (abstract, column 5, lines 53-68, column 6, lines 1-4). Formation of membrane by solvent casting and or phase inversion is conventional in the art. Therefore, it would have been obvious to one skilled in the pertinent art to alternatively select conventional binders for adsorptive particles, e.g. polysulfone, as suggested by '925, for making a membrane containing the adsorptive properties, from the process disclosed by '494 or '412.

Regarding claims 3 and 13, the particular volume of the adsorptive structure or membrane is not disclosed, but immersing the pipette tip in the solution forming the structure or membrane by introducing into the tip 50 or more microliter of the solution, and further extracting the or solidifying the membrane in water bath is disclosed by '594 (page 45, 1-22). Therefore, a membrane having a volume in the order of microliter is expected to the skilled artisan.

Controlling the amount of solution inside the pipette tip will determined the volume of membrane having sorptive particles disposed in the pipette or housing, as suggested by the '594.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857.

Facsimile No (703)308-7718.

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ANA FORTUNA  
PRIMARY EXAMINER  
GROUP 1300  
1723

Ana Fortuna

March 22, 2000